

# Material Safety Data Sheet



Zep Inc.  
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## Section 1. Chemical Product and Company Identification

**Product name** CITRUS CLEANER RTU  
**Product use** Cleaner. Degreaser  
**Product code** R178  
**Date of issue** 11/02/09 **Supersedes**

### Emergency Telephone Numbers

**For MSDS Information:**  
Compliance Services 1-877-793-7776

**For Medical Emergency**  
(877) 541-2016 Toll Free - All Calls Recorded

**For Transportation Emergency**  
CHEMTREC: (800) 424-9300 - All Calls Recorded  
In the District of Columbia (202) 483-7616

**Prepared By**  
Compliance Services  
1420 Seaboard Industrial Blvd.  
Atlanta, GA 30318

## Section 2. Hazards Identification

### Emergency overview

**WARNING!**

COMBUSTIBLE. CAUSES EYE IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION.

\*Hazard Determination System (HDS): Health, Flammability, Reactivity



**NOTE:** MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

### Acute Effects

#### Routes of Entry

Dermal contact. Eye contact. Inhalation.

**Eyes** Causes eye irritation. Inflammation of the eye is characterized by redness, watering and itching.

**Skin** May cause skin irritation. Skin inflammation is characterized by itching, scaling, or reddening. May cause skin sensitization.

**Inhalation** Avoid breathing vapors, spray or mists. Over-exposure by inhalation may cause respiratory irritation.

**Ingestion** May be harmful if swallowed. Can cause gastrointestinal disturbances.

### Chronic effects

Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver.

**Carcinogenicity** No known significant effects or critical hazards.

### Product/ingredient name

Not available.

**Additional Information:** See Toxicological Information (Section 11)

## Section 3. Composition/Information on Ingredients

### Name of Hazardous Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
D-LIMONENE; orange distillate; citrus terpene; cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)-	5989-27-5	1 - 5
MONOETHANOLAMINE; 2-aminoethanol; MEA	141-43-5	1 - 5
SODIUM XYLENE SULFONATE	1300-72-7	1 - 5
DIETHYLENE GLYCOL MONOBUTYL ETHER; 2-(2-butoxyethoxy)-ethanol; butyl carbitol	112-34-5	1 - 5
ALPHA OLEFIN SULFONATE; SODIUM SALT; sulfonic acids; c14-18 alkane and c12-20 alkene; c12-20 alkenhydroxy; sodium salts	68439-57-6	1 - 5
C12-C16 ETHOXYLATED ALCOHOLS	68551-12-2	<3
TALL OIL FATTY ACIDS; fatty acids, tall oil	61790-12-3	<3

**Section 4. First Aid Measures**

<b>Eye Contact</b>	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.
<b>Inhalation</b>	Move exposed person to fresh air. If irritation persists, get medical attention.
<b>Ingestion</b>	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. If affected person is conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Section 5. Fire Fighting Measures**

National Fire Protection Association (U.S.A.)



<b>Flash Point</b>	Closed cup: >51°C (>123.8°F) [Tagliabue.]
<b>Flammable Limits</b>	Not determined.
<b>Flammability</b>	COMBUSTIBLE.
<b>Fire hazard</b>	Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
<b>Fire-Fighting Procedures</b>	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.

**Section 6. Accidental Release Measures**

<b>Spill Clean up</b>	Eliminate all ignition sources. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
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**Section 7. Handling and Storage**

<b>Handling</b>	Put on appropriate personal protective equipment (see section 8). Store and use away from heat, sparks, open flame or any other ignition source. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Do not ingest. Empty containers retain product residue and can be hazardous. Do not reuse container. Wash thoroughly after handling. Apply this product only as specified on the label.
<b>Storage</b>	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Keep out of the reach of children.

**Section 8. Exposure Controls/Personal Protection****Product name**

MONOETHANOLAMINE; 2-aminoethanol; MEA

DIETHYLENE GLYCOL MONOBUTYL ETHER; 2-(2-butoxyethoxy)-ethanol; butyl carbitol

**Exposure limits****OSHA PEL / ACGIH TLV (United States).**

TWA: 3 ppm 8 hour(s).



**OSHA /ACGIH (United States).**

STEL: 6 ppm 15 minute(s).

**Manufacturer (United States).**

TWA: 35 ppm 8 hour(s).

**Personal Protective Equipment (PPE)**

<b>Eyes</b>	Safety glasses.	
<b>Body</b>	Recommended: Neoprene gloves. Nitrile gloves. Rubber gloves.	
<b>Respiratory</b>	Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of below established levels. Wear appropriate respirator when ventilation is inadequate.	

**Section 9. Physical and Chemical Properties**

<b>Physical State</b>	Liquid. [Thin liquid]	<b>Color</b>	Clear. Orange.
<b>pH</b>	11 to 12	<b>Odor</b>	Citrus
<b>Boiling Point</b>	Not determined.	<b>Vapor Pressure</b>	0.004 kPa (0.03 mm Hg)
<b>Specific Gravity</b>	1.01	<b>Vapor Density</b>	Not determined.
<b>Solubility</b>	Soluble in the following materials: cold water and hot water.	<b>Evaporation Rate</b>	1 (Water = 1)
		<b>VOC (Consumer)</b>	4% (w/w)

**Section 10. Stability and Reactivity**

- Stability and Reactivity** The product is stable.
- Incompatibility** Keep away from heat, sparks and flame. Reactive or incompatible with the following materials:  
oxidizing materials.  
Slightly reactive or incompatible with the following materials: acids.
- Hazardous Polymerization** Under normal conditions of storage and use, hazardous polymerization will not occur.
- Hazardous Decomposition Products** carbon oxides (CO, CO<sub>2</sub>)

**Section 11. Toxicological Information****Acute Toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Monoethanolamine	LD50 Dermal	Rabbit	>1000 mg/kg	-
	LD50 Oral	Rat	1720 mg/kg	-
Diethylene Glycol Monobutyl Ether	LD50 Dermal	Rabbit	2700 mg/kg	-
	LD50 Oral	Rat	5660 mg/kg	-
	LD50 Oral	Mouse	2400 mg/kg	-
	LD50 Oral	Rat	1380 mg/kg	-
C12-C16 ETHOXYLATED ALCOHOLS	LD50 Oral	Rat	1380 mg/kg	-

**Section 12. Ecological Information**

- Environmental Effects** No known significant effects or critical hazards.
- Aquatic Ecotoxicity**

Not available.

**Section 13. Disposal Considerations****Waste Information**

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

- Waste Stream** Code: D001  
Classification: - [Hazardous waste.]  
Origin: - [RCRA waste.]

**Section 14. Transport Information**

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
<b>DOT Classification</b>	Not applicable.	Not applicable.	-	I	
<b>IMDG Class</b>	Not determined				

**NOTE:** DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG\* : Packing group

**Section 15. Regulatory Information****U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:

**Product name**

Diethylene Glycol Monobutyl Ether

**Clean Water Act (CWA) 307:** No products were found.

**Clean Water Act (CWA) 311:** No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances:** Diethylene Glycol Monobutyl Ether

All Components of this product are listed or exempt from listing on TSCA Inventory.

**State Regulations**

- California Prop 65** No products were found.

**Section 16. Other Information**

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

*Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

\*NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.